

WHAT IS CLAIMED IS:

1. A controller for controlling settings of a plurality of imaging apparatuses, comprising:

5 detection means for detecting an imaging state of each of said imaging apparatuses;

calculation means for calculating first settings of control parameters for each of said imaging apparatuses based on a detection result from said detection means; and

10 set-up means for setting up each of said imaging apparatuses to said first settings calculated by said calculation means.

2. The controller according to claim 1, wherein said detection result is second settings properly adjusted to  
15 each of said imaging apparatuses.

3. The controller according to claim 1, wherein said detection result is obtained from a sensor provided in proximity of each of said imaging apparatuses and said  
20 detection result is used as second settings for each of said imaging apparatuses.

4. The controller according to claim 1, wherein said detection result is a distribution of brightness calculated  
25 from an image taken by an imaging apparatus which is capable of imaging a wider field of view and said detection result

is used as second settings for each of said imaging apparatuses based on said distribution.

5. The controller according to claim 2, wherein said  
5 calculation means calculates an average of said second settings for said plurality of imaging apparatuses and said average is used as said first settings.

6. The controller according to claim 3, wherein said  
10 calculation means calculates an average of said second settings for said plurality of imaging apparatuses and said average is used as said first settings.

7. The controller according to claim 4, wherein said  
15 calculation means calculates an average of said second settings for said plurality of imaging apparatuses and said average is used as said first settings.

8. The controller according to claim 2, wherein said  
20 calculation means sets said first settings by using said second settings for a representative imaging apparatus among said plurality of imaging apparatuses.

9. The controller according to claim 3, wherein said  
25 calculation means sets said first settings by using said second settings for a representative imaging apparatus among said plurality of imaging apparatuses.

10. The controller according to claim 4, wherein said calculation means sets said first settings by using said second settings for a representative imaging apparatus among  
5 said plurality of imaging apparatuses.

11. The controller according to claim 2, wherein said calculation means calculates first settings for an imaging apparatus of interest depending on a difference in second  
10 settings between said imaging apparatus of interest and an imaging apparatus adjacent to said imaging apparatus of interest.

12. The controller according to claim 3, wherein said  
15 calculation means calculates first settings for an imaging apparatus of interest depending on a difference in second settings between said imaging apparatus of interest and an imaging apparatus adjacent to said imaging apparatus of interest.

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13. The controller according to claim 4, wherein said calculation means calculates first settings for an imaging apparatus of interest depending on a difference in second settings between said imaging apparatus of interest and an  
25 imaging apparatus adjacent to said imaging apparatus of interest.

14. The controller according to claim 2, wherein said first and second settings include shutter speed, focal length, and diaphragm of an imaging apparatus.

5 15. The controller according to claim 3, wherein said first and second settings include shutter speed, focal length, and diaphragm of an imaging apparatus.

10 16. The controller according to claim 4, wherein said first and second settings include shutter speed, focal length, and diaphragm of an imaging apparatus.

17. A controller for controlling the settings of a plurality of imaging apparatuses, comprising:

15 image generation means for generating an image with an average luminance value from the respective images taken by said plurality of imaging apparatuses; and

means for determining the settings of the imaging apparatuses based on the image generated by said image  
20 generation means,

wherein said plurality of imaging apparatuses are set up to the determined settings.

18. The controller according to claim 17, wherein said  
25 plurality of imaging apparatuses automatically adjust their diaphragms based on the determined settings.

19. The controller according to claim 1, wherein said imaging apparatus includes a CCD camera.

20. The controller according to claim 17, wherein said  
5 imaging apparatus includes a CCD camera.

21. An image processing apparatus for processing an image, comprising:

generation means for generating a transformation from  
10 the luminance value of images with overlapping portions to a predetermined luminance value; and

transformation means for performing the luminance value transformation generated by said generation means on said overlapping portions and for performing a  
15 transformation on non-overlapping portions by weighting said luminance value transformation.

22. The image processing apparatus according to claim 21, wherein said generation means generates a translation to  
20 minimize a difference in luminance value on an overlapping portion between an image of interest and another image.

23. The image processing apparatus according to claim 21, wherein said generation means generates a translation to  
25 obtain an average luminance value on an overlapping portion between an image of interest and another image.

24. A control method for controlling settings of a plurality of imaging apparatuses, comprising:

a detection step of detecting the imaging state of each of said imaging apparatuses;

5 a calculation step of calculating first settings of control parameters for each of said imaging apparatuses based on the detection result from said detection step; and

a set-up step of setting up each of said imaging apparatuses to said first settings calculated by said  
10 calculation step.

25. A control method for controlling settings of a plurality of imaging apparatuses, comprising:

an image generation step of generating an image with  
15 an average luminance value from the respective images taken by said plurality of imaging apparatuses; and

a step of determining the settings of the imaging apparatuses based on the image generated by said image generation step,

20 wherein said plurality of imaging apparatuses are set up to the determined settings.

26. An image processing method for processing an image, comprising:

25 a generation step of generating a transformation from the luminance value of images with overlapping portions to a predetermined luminance value; and

a transformation step of performing the luminance value transformation generated by said generation step on said overlapping portions and for performing a transformation on non-overlapping portions by weighting said luminance value transformation.

27. A program code for executing the control method according to claim 24.

10 28. A program code for executing the control method according to claim 25.

29. A program code for executing the method for processing an image according to claim 26.

15 30. A computer-readable storage medium storing the program code according to claim 27.

31. A computer-readable storage medium storing the program code according to claim 28.

32. A computer-readable storage medium storing the program code according to claim 29.

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